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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/634,388

08/05/2003

Jeroen Siebrand Wellen

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46363 7590 06/29/2006

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EXAMINER

SEDIGHIAN, REZA

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/634,388	WELLEN, JEROEN SIEBRAND	
	Examiner	Art Unit	
	M. R. Sedighian	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-15 and 19-22 is/are rejected.
- 7) ☒ Claim(s) 7-9 and 16-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/3/03, 12/22/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2613

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 1, 10, and 19, it is not clear what is meant by "... in which the optical network units are connected together in a series, ...". Figure 3 shows optical network units (ONU 1.1, ONU 1.2, ONU 1.3, and ONU 1.4) that are separately connected to a protection switch 20, not in series.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 19-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Eijk et al. (US patent No: 6,771,908).

Regarding claim 19, as it is understood in view of the above 112 problem, Eijk teaches a method for protecting an optical access network (figs. 5, 12) comprising a plurality of optical network units (ONTs, figs. 5, 12) connected to an optical line terminal (OLT, fig. 5 and col. 14, line 4) in a ring topology (col. 7, lines 56-67, col. 8, lines 1-13) in which the optical network

Art Unit: 2613

units are connected together in series (ONT11, ONT1x, ONT21, ONT2x, fig. 12, note that ONTs are serially connected to optical line terminal unit 508, as it is shown in figs. 5, 12), the optical line terminal (col. 14, line 4) being connected (1310-1, fig. 12) to the first optical network unit in the series (ONT11, fig. 12) and the last optical network unit in the series (ONT3x, fig. 12) being connected (1310-3, fig. 12) to the optical line terminal, and wherein the connections are via a protection switch (1318, fig. 12), the method comprising: monitoring the connections from the optical network units to detect a loss of signal from an optical network unit (col. 16, lines 45-49), switching (1318, fig. 12) the optical network unit out of the series such that continuity of the ring topology is maintained (col. 16, lines 50-60, note that when there is a failure or a fiber cut, for example in fiber 1310-2, the optical network unit ONT21 or ONT2x is not connected to the rest of network or being out of the series).

Regarding claim 20, Eijk teaches when an optical network unit is switched out of the series, connecting together the connections to and from the optical network unit (col. 16, lines 54-58).

Regarding claim 21, Eijk teaches monitoring optical signals in the ring to detect loss of signal in the ring (col. 16, lines 45-47); and toggling switches (1318, 1320, fig. 12) in the protection switch in the event of a loss of signal in the ring to identify a faulty connection (col. 16, lines 49-53).

Regarding claim 22, Eijk teaches monitoring optical signals in the ring to detect malicious or unauthorized usage of an optical network unit (col. 8, lines 63-67, col. 9, lines 1-10); and responsive to the detection of malicious or unauthorized usage, switching the optical network unit subject to such usage out of the series (col. 8, lines 20-25).

Art Unit: 2613

6. Claims 1-6, 10-15, and 19-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Davis et al. (US Patent No: 6,798,991).

Regarding claims 1, 10, and 19, as it is understood in view of the above 112 problem, Davis teaches an optical access network (10, fig. 1) including a plurality of optical network units (12, fig. 1 and 12a, fig. 4) connected to an optical line terminal (28, figs. 1, 3, 4, note that terminal facilities 12 each respectively connected to optical line terminals such as WDMs 24 and fibers 28, as it is shown in figs. 3, 4) in a ring topology (terminal facilities 12 are connected in a ring configuration) in which the optical network units are connected together in series (terminal facilities 12 are connected to each other through fiber lines 28 in series), the optical line terminal (28, figs. 1, 4) being connected to the first optical network unit in the series and to the last optical network unit in the series (each of the terminal facilities 12 respectively connected to the line terminal 28), and wherein the connections are via a protection switch (22a, fig. 4), the protection switch (22a, fig. 4) comprising: means for monitoring (26, fig. 4) the connections from the optical network units to detect a loss of signal from an optical network unit (col. 6, lines 3-20), and a plurality of switching elements (32, 42, fig. 4), one for each optical network unit (each optical terminal facility 12 has switching elements such as 32, 42, shown in fig. 4) responsive to detection of loss of signal from the respective optical network unit (col. 7, lines 21-35) to switch the respective optical network unit out of the series such that the continuity of the ring topology is maintained (col. 7, lines 35-37, note that when optical switches 32 are coupled to another communication conduit 28, the optical network unit or terminal facility 12, is out of previous series and the continuity of the ring topology is still maintained).

Art Unit: 2613

Regarding claims 2 and 11, Davis further teaches the switching elements are cross-bar switches (32, fig. 4).

Regarding claims 3 and 12, Davis further teaches a plurality of photodetectors (38, fig. 4) are arranged to detect signals on the connection from a respective optical network unit (col. 7, lines 26-32).

Regarding claims 4 and 13, Davis further teaches each photodetector is arranged to control its respective switching element directly (col. 7, lines 25-28).

Regarding claims 5 and 14, Davis further teaches a controller (27, fig. 4) coupled to the photodetectors for controlling the plurality of switching elements (col. 7, lines 25-30).

Regarding claims 6 and 15, Davis further teaches the controller is arranged to toggle at least one of the plurality of switching elements in the event of a loss of signal in the ring to identify a faulty connection (col. 7, lines 29-37).

Regarding claim 20, Davis teaches when an optical network unit is switched out, connecting together the connections to and from the optical network unit (col. 7, lines 21-23, 34-37).

Regarding claim 21, Davis teaches monitoring optical signals in the ring to detect loss of signal in the ring (col. 7, lines 36-38); and toggling switches (32, 42, fig. 4) in the protection switch in the event of a loss of signal in the ring to identify a faulty connection (col. 7, lines 30-37).

Regarding claim 22, Davis teaches monitoring optical signals in the ring to detect malicious or unauthorized usage of an optical network unit (col. 9, line 21-27); and responsive to

Art Unit: 2613

the detection of malicious or unauthorized usage, switching the optical network unit subject to such usage out of the network (col. 7, lines 33-36).

7. Claims 7-9 and 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. R. Sedighian whose telephone number is (571) 272-3034. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


M. R. SEDIGHIAN
PRIMARY EXAMINER